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(54) METHOD FOR IMPROVING SOLUBILITY OF  
SCARCELY SOLUBLE DRUG

(57) Abstract:

PURPOSE: To remarkably improve the dissolution property of a drug by simply mixing a scarcely soluble drug to porous cellulose particles having specified specific surface area and pore volume and absorbing the drug to the particle by sublimation.

CONSTITUTION: The dissolution property of a scarcely soluble drug can be improved by mixing the drug to porous cellulose particles having an average

particle diameter of  $\leq 100\mu\text{m}$  and a specific surface area of  $\geq 20\text{m}^2/\text{g}$  and containing  $0.3\text{--}1.2\text{cm}^3/\text{g}$  of pores having diameter of  $\geq 0.01\mu\text{m}$  and absorbing the drug to the particle by sublimation. The cellulose particles can be produced by dispersing fine cellulose particles (e.g. ramie, cotton linter, wood pulp or crystalline cellulose) in an organic solvent (e.g. acetone, methanol, n-hexane or benzene) and granulating and drying by spray-drying process. The drug to be used in the present process is a sublimable molecular crystal scarcely soluble in water, e.g. benzoic acid, caffeine, camphor or salicylic acid.

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